

*On Blood Letting in Consumptions*  
by Sam<sup>r</sup> Parr M.D. London 1775. 42p.

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# ENQUIRY

INTO THE

PROPRIETY of BLOOD-LETTING

IN

CONSUMPTIONS.

By SAMUEL FARR, M.D.

L O N D O N:

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## *Advertisement.*

**I**T may be necessary to inform the Reader that this Treatise was written two years ago, and that the References to some Books and Cases which are occasionally mentioned, must be accommodated to that Time. The Author, however, hath had no Reason since to alter his Sentiments upon this Subject; he can safely affirm that every Day's Experience corroborates the Truth of them.

Bristol, June 1, 1775.





EVERY part of the practice of  
phyfic should be examined with  
care and attention, and every mode of  
healing should be often and successfully  
tried before it gains universal approba-  
tion. The importance of experience  
is so great, that the best physicians are  
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fond of availing themselves of it. But an experience which is ill-founded, and never contributes to a cure, is the most pernicious principle which can direct a practitioner, because he knows not how to amend his errors, and from what sources a good practice is to be derived. Every man, therefore, who pretends to medical knowledge, should not be directed by facts alone, as they are simply presented to him, but should be able to account for them all as they happen, to reason upon them with clearness and precision, and confirm the strong evidences of his senses, by the best efforts of his judgment.

There is no disorder hardly so common and so fatal in its consequences as the consumption. It is reputed a characteristic of this country and climate. And this city is not only the resort of the inhabitants of the rest of the kingdom, but is peculiarly productive of it itself. The physicians then who are settled

settled here have every opportunity of examining into its nature, of surveying its progress through the several stages which belong to it, and investigating all the causes from which it may arise. Whenever, therefore, any cures are performed, it is presumed they must be done in a judicious and masterly manner, but alas! the disease is deemed almost incurable, and no other remedies but palliative ones are adopted, by which indeed the poor patient meets his dissolution with tranquility and calmness, but can never gratify the desire of prolonging a life formed to be useful, and contributing his mite to the benefit of mankind. Shall we then say that this is owing to mistaken views of the disorder, or agree with the generality in condemning so many innocent fellow-creatures. If indeed we appeal to experience in the case, we shall find no aid from that quarter, for that will seldom acquaint us with any real cures. And if we try the test of reason, she will



give us no aid, because we have deserted her long ago, and trusted to an experience which hath deceived us. Happy indeed should I be, if by drawing mens attention from a method which has so long been unsuccessful, I should direct them to think of a new one which may be influenced by reason, if it will not stand the test of experiment. At least I think it will have a better foundation than the present, which can be supported neither by the one nor the other.—In order to do this as effectually as possible, I paved the way to it last year by publishing a set of Aphorisms upon this subject, in which the opinions of the several authors who have given us their sentiments upon it, are selected and arranged in a systematic manner. The result, however, of what they have done, hath amounted only to what we have represented—A judicious method of palliating the distressful symptoms with which this disease is accompanied. But let not this intimidate

date us from pursuing the cause in a different manner. Let us erect the tribunal of Reason, and bring the several methods of cure which have been already adopted to her bar.

Now the first which offers is that of Blood-letting; and this is supposed to be indicated by the hardness and frequency of the pulse, by evident marks of inflammation, and fever consequent upon it, and by a short and oppressed breathing, which requires the lungs to be relieved from the load with which it is supposed to be overwhelmed. To examine this affair more accurately, we shall first enquire what is the use and intention of this evacuation, and then what is the disease which requires to be relieved by it.

The human body is a machine which is made up of a certain quantity of fluids and solids, each contributing to the support, maintenance and proper regulation  
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of the other. Whilst a due equilibrium then is preserved between them, the body we may say is in perfect health; but whenever a deviation is made from it (and such a deviation is often made by a variety of external accidents) then sickness or disease of various kinds will obtain. Whenever the fluids prevail in too large a quantity, they will not only offend by this redundancy, but they will become of a different nature from their original constitution, and the solids likewise will be weakened, and become unfit to obey the laws of the system. When the solids too are debilitated, let the cause be what it will, they will not act in that vigorous and just manner to which they have been accustomed. The consequence of this will be that the fluids will increase in their quantity, or become offensive in their nature—Whenever the former of these states obtain, viz. that the fluids offend by quantity, then it is necessary that some evacuation should take place, and reason justifies this practice;



tice; because that it relieves the solids from that great labour which they must undergo in restoring the fluids to their proper proportion, if we were to direct all our attention immediately to them. The same observation will not hold good, however, where the fluids offend by an alteration in their nature. And the reason of this is to be derived from a view of the nature of the fluids. They are of a very heterogeneous nature, and their alteration may proceed from an unjust separation of some parts which may prevail over the rest, rather than from any new matter which may be added from external causes. The business of the physician then in this case is to enable the solids by a restoration of their native power, to act upon the fluids in such a manner as will destroy this unequal separation of their contents.

But to return to the case of redundancy. Where it prevails in too great a degree, the solids do not always find  
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any violent effects in their substance from it, unless where a defect in them is the immediate cause from which it proceeds. But their action will always be influenced by it, because they have a greater volume to act upon, and therefore a greater force is required to circulate the fluids properly. If this should not happen, indeed the body must soon be overwhelmed by the weight of fluids, and no remedy could be administered speedy enough for relief. This increased action, however, tends, though in a gradual manner, to induce more and more debility, and at length no longer able to sustain the combat, the solids are obliged to decline it through necessity, and lose their whole power of action. The consequence of which is the most dreadful event which can happen to the human frame. If the fluids of the human body by too great a quantity distress and debilitate the force of the solids, they will have the same effect when they circulate in too small a proportion. This, perhaps, is more easily



sily to be explained than the former. There is a power or force in the animal machine which always disposes it to action. It is not our business to take notice of this power in this dissertation, but we may just hint that we mean by it the nervous influence, or that sentient principle which derives its origin from the brain, and is extended through the whole system. If this force be exercised in too great a degree, it will always occasion debility, because it is the source of all action in the body. This was alluded to before, where too great a plenitude obtained. It is equally evident in this case of too great a deficiency of the fluids. To explain it, however, it is necessary to inquire into the manner by which the solids always act upon the fluids in their circulation. This is always done by means of a contraction of hollow vessels. Now if it be necessary to push forward a very small quantity of fluid through such vessels, which for want of it are apt to collapse, the con-

traction must be very considerable to perform it, and which will require a greater force, and of consequence a greater expence of the nervous power. And besides this, at the same time the proper supply by which the nervous system is supported is prevented.\* There is no necessity, however, to appeal to any principles of the animal œconomy to be convinced that a loss of the fluids will be attended with any degree of debility. It is the sole means almost by which we deprive brute animals of their lives, and I am afraid that too many likewise of the human species have been sacrificed in the same way to the prejudices of custom, and the presumption of ignorance.

Blood-letting is that evacuation which is most easily performed, and which applies most immediately to the vital power. Whenever therefore we are certain of too great a redundancy of the natural fluids, which we may now call the blood, it is the

\* Vide Macbride's Introduction to the Practice of Physic, p. 73.

remedy which naturally presents itself to us. There are certain marks too by which we may judge of this plenitude; nature hath not left us without a guide in an affair of such consequence. These marks are reputed great fullness and hardness of the pulse, heat over the whole body, heaviness of the head, redness of the eyes, inability to motion, and often violent pains either universally, or in some particular part. There is another mark too which is taken from the blood itself, which is called a buff or size, a part of the blood separated from the rest swimming upon the top in form of a white crust. We may dispute, however, that this is a mark of too great a redundancy of the fluids. It may be consequent indeed upon that violent action of the solids which is induced by this plenitude, but is no sign of its existence, for it remains a long time after this has been destroyed.—The same observation may be made with regard to many of the other signs, such as pain, heat, red-



ness of the eyes, &c. all which betray the too great action of the vessels, but have no existence till that action hath taken place. The principal signs of plethora or plenitude then are, the heaviness of the head, which is generally attendant upon it, and the fullness of the pulse, which is its constant sign—But what shall we say to a laborious respiration. The lungs circulate an equal quantity of blood with the rest of the body; whatever therefore increases the volume of this fluid, must interfere, one might think, with respiration, which is their action—But we do not find this always to be the case, and we may account for it perhaps from the soft texture of the lungs, which will allow its fibres to be stretched without any great excitement to contraction. Whenever it arises to a great degree, they are violently affected, and blood-letting is immediately required to give relief. But respiration is often laborious from other affections of the lungs, or when the plenitude of fluid

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confined to their substance. We are not to consider it then as an absolute mark of redundancy, but to take many other circumstances into the account before we determine to use that evacuation which is of so much consequence to the animal system,

There have been many and violent disputes long ere this upon the propriety of bleeding in almost all cases. And mankind have often been so much swayed by prejudice and an ill-founded theory, as to vindicate, with the utmost virulence, both the universal practice of it, and the general abstaining from its use. And whilst on one side it hath been advanced, that more people have been drowned in their own blood than in the ocean—on the other side it hath been alledged, that more have been destroyed by the lancet than by the sword. That candour and liberality of sentiment which should influence every man in the investigation of the truth, will enable him to  
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see the errors of these violent partizans. He will adopt for his guide the exercise of his rational faculties, and he will lay down such marks for the propriety or impropriety of this evacuation, as his own reason or experience, and the reason and experience of all wise men before him have pointed out to his view. It is no trifling matter, the lives of thousands may depend on an inaccuracy of judgement.

What cruelty must it be then to lay down a rule which shall incapacitate our judgement from its proper exercise. We have seen that great debility is the consequence of too great a plenitude, or too great a deficiency of animal fluid. An excess then in either of the extremes we mentioned, must be attended with very fatal consequences. The judgment of a physician is required to establish that just equilibrium upon which health and safety depends. And indeed it is of so much consequence, that no trifling judgment should be entrusted with it. The  
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best physicians may err in this respect. And none but good physicians, and very able practitioners, should ever preside over the direction of the lancet.

If we were to examine into the history of medical cases from the beginning of the world to this time, we should find perhaps that more injury than advantage hath been sustained by bleeding. And the reason of this is, that so easy a remedy has been taken up by practitioners of all understandings, and has been made more the instrument of ignorance and craft, than of sound judgment and honest endeavours to do good. For even in those cases where evident marks present themselves to indicate its use, other circumstances of great consequence to the constitution will prohibit it. From these marks indeed we can judge of the propriety of this evacuation with regard to the part which is immediately affected. But there may be such a general weakness of the whole system as would endanger  
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the life of the patient, if such a practice were to be put in execution. In such a case we are to run the risque of inducing some further disease, rather than by alleviating the present symptoms, to procure an immediate dissolution. I believe it often happens more frequently indeed than is suspected—That to cure a disorder we destroy the patient; so dangerous is it to confide only in the relief of a few prevailing symptoms. This weakness too is a very fallacious sign, for it may arise from, and indeed often does accompany that state of the constitution where the most copious bleeding is required, whilst at other times it is a mark by which we are scrupulously to avoid this evacuation. Notwithstanding this some people will tell you, that the indications for blood-letting are extremely plain and easy, and that very little judgment is required to determine either the time for performing it, or the quantity of blood which is to be taken away. They will say that it is always necessary  
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in the beginning of inflammatory fevers, by which they mean fevers accompanied with a hard full pulse, &c. that so much is to be taken away as to procure fainting, and that it is to be repeated as often as any size or white crust is to be seen on the surface of the blood—I will not say that such practitioners have no better success than their neighbours, but this I will maintain, that many persons have been relieved where no such method hath been pursued, and where it is most probable they would soon have yielded to their fate had they been treated in such an Herculean manner. I will not say but that it may be sometimes necessary to take away a large quantity of blood, but then it should be done with the greatest discretion, and after the maturest judgement upon the case.—There can be nothing more precarious than the rules relating to the size or buff upon the surface of the blood; till of late we did not know any thing of its nature, and it appears from the experiments of

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the ingenious Mr. Hewson, to arise in consequence of a dissolution of that fluid, rather than to be a mark of its viscosity and cohesion. Besides, this buff will remain often of the same thickness during the whole progress of the disease, and till every distressing symptom is removed. If we were to adhere then to such a rule, we should never have finished bleeding till by this injudicious practice we had reduced our patient to the last extremity. The best, nay the only rule which I think ought to be observed with regard to bleeding, is with a clear and unprejudiced judgment to watch every symptom attendant upon a disease, and to consider the powers which tend to induce debility, and the influence they have over the constitution. If upon a contemplation of all these we find they have not essentially impaired the animal machine, or have not too much exerted their action, we may then have recourse to that evacuation which will procure the most speedy relief, and we are to pursue it as  
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long as we find the symptoms of plenitude are urgent, and other weakening powers have not interfered too much in producing their common effect. It is true that this, as well as every other evacuation, will occasion great weakness, such as is unavoidable in the cure of diseases, and such as is easily repaired. The pulse will generally then be our guide in this case, but it will sometimes deceive us, and then indeed we must have recourse to that judgment and experience which every man adopts for himself, but has no expressions to convey to another.

Let us now examine into the propriety of this evacuation, in the case of consumptions, a disease so generally fatal to the human constitution. By referring to those aphorisms which I published last summer upon this disease, we shall find that in the stage which entitles it to this denomination, when the body begins sensibly to decay, that it constantly arises from an ulcer of the lungs, which by



feeding the blood with acrimonious stimulating matter, occasions an undue exercise of the vital powers, and excites unnatural evacuations; by both which that debility is induced which ends at last in the most deplorable death—An ulcer always arises from inflammation, and of consequence may depend for its primary origin on an universal or partial plenitude of the fluids. In the case before us we may suppose it arises from both, universal in being dependent on a stoppage of perspiration, which returns the perspirable matter into the mass of blood, and thus increases its volume; and partial in fixing in the lungs or pleura, the membrane which surrounds them, and there producing all its direful effects. In every inflammation the blood is pushed into some vessels which are not capable of resisting the force with which it is urged forwards by the vital powers. The first object then of a physician who meets with such a case, is to endeavour to drive it back into its proper channels, and to calm that power  
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in the vital organs by which it is driven on with such impetuosity—The means of effecting this purpose will be then to empty the vessels of that large quantity of fluids they contain, and thus enable them to circulate their accustomed quantity with ease. Here then blood-letting, with the care and precaution we have already mentioned, will be absolutely necessary. But an inflammation may arise likewise from another source. The blood may not only be injured by being overloaded or deprived of its proper proportion, but when it is not circulated equally and with certain powers through the system, it separates into a number of parts which were concealed in the general mass, and thus constitutes a fluid of quite a different nature—whilst these distinct parts wander about in the general circulation, and irritate the fibres over which they pass. By this a quicker circulation is produced, the resisting power of some vessels is not able to sustain the force of it, the blood is driven into them, and an inflam-



inflammation is occasioned. This may happen too where there is no general plenitude, and it may happen where there is, and something of this kind accompanies every inflammation—Where it arises, however, without a plenitude of the fluids, we are certainly to be very cautious with regard to the use of the lancet; not that it is absolutely to be prohibited, but it must be considered merely as a palliative remedy. It is designed in this case to enable a small number of vessels to exert their proper force over fluids which are forced into them. But at the same time it weakens the system in general, and thus takes off from the original power which the solids have of circulating the fluids.—Where there is no plenitude, debility must be always induced by bleeding. In all cases therefore where acrimony prevails, this evacuation will be injudicious, and must be admitted as sparingly as possible. It will depend entirely on the natural strength of the patient, more perhaps than upon  
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any symptoms which accompany the disease. And there may be some of such low and weak habits who will never be relieved by it, but must always suffer from its use. The same observations will hold good, whether we consider the inflammations to arise from any particular part which confines the blood within itself, or whether the vessels are ruptured, and pour out their contents; with this difference only, that a general plenitude will seldom occasion a rupture of the vessels; some degree of acrimony must be added to produce this effect, and yet bleeding is generally indicated, because as there must be an evacuation of blood, it is much better it should be in a place where we can have a proper command over it, than in that situation where it defies all the assistance we would wish to afford. Where, however, great acrimony prevails, it is much better that we should endeavour to stop this spitting of blood by the lighter styptics (for it will not bear the most powerful ones) than by blood-letting induce such a debility as is not easily recovered.

An ulcer then we see is always produced by a previous inflammation; but in the state in which we see it, the inflammation is destroyed, and every symptom of plenitude removed. It is now a disease which depends entirely on an acrimony, introduced into the blood by a separation of its constituent parts—The blood poured into vessels not used to convey it, not only by stagnation but the violent action it induces upon the solids of such vessels, if it continue in them any length of time, will undergo that dissolution which is common to all heterogeneous fluids—We have not indeed been able absolutely to ascertain the nature of that substance, which is constantly the product of an inflammation; in general it is of a mild nature where the blood is in a perfect state before, and the solids are enabled to act with vigour; but where the body is previously debilitated, and the fluids are in an acrimonious state, there a substance of the most offensive nature is produced, and which when absorbed into the system, is the occasion of all the dreadful effects we see attendant on a consumption. We derive our ideas  
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of ulcers in general from what are the consequence of wounds in some external part of the body; in which by great care and assiduity, though not always without the aid of internal medicines, the Peruvian bark, mercurials, purgatives, &c. with a bland mild diet, we bring on a good digestion, which means the production of that inoffensive substance called true pus. An ulcer may likewise arise in an external part without a previous wound in the flesh, to which we may resemble an hæmoptoe, or spitting of blood. It may arise, I say, in consequence of a general plenitude, when the fluid is forced into the external skin, rather than into any internal part, and then it is called a phlegmon or abscess. Here too when the body is in a perfect state of health, a laudable or good pus will be produced, and being opened with a knife or caustic, no bad consequences will follow—If the matter produced should be too acrimonious, and partake of a different nature, we must then have recourse to the same remedies which were employed in those ulcers we mentioned before. If an abscess, or, in

consequence of it, an ulcer should arise in any internal part of the body, and where no means of opening it can be made use of, we are to endeavour in the same manner as in the former instances to render the digestion as good as we can, and then to exude it through the pores of the skin, or translate it to some external part, at the same time taking the greatest care of the part which is injured, and applying those peculiar remedies which are appropriated to its relief.

We shall suppose that an abscess, or a wound, arises in the substance of the lungs, one of the most tender organs of the human frame, and then it forms this disease which is at present under our consideration. We are to enquire then whether blood-letting is a means of relieving the substance of the lungs from the injuries it would otherwise sustain, and whether that relief is advisable in order to restore the health of a consumptive person? The lungs, it is well known, circulates in a given time the same quantity of blood as the rest of the body. The greatest part of their subsistence then consists

sists of fluid, which in one beat of the pulse passes through the lungs, and in another passes through the whole system of blood-vessels; every obstruction then which arises in them must interrupt the course of the circulation through their substance, and occasion very soon an universal affection of the body. Every diminution too of the quantity of blood, by whatever means occasioned, must influence the circulation through the lungs. Now it will be evident that not only during a state of inflammation, but even during every period of a consumption, an obstruction to the passage of the blood through the lungs will be occasioned, and blood-letting, which always will relieve such an effect, will be indicated. This is evident too to experience. There is not a more troublesome symptom during the whole course of this disease, than a laborious respiration, and this not only in the stage of inflammation, but long after that hath been removed, and even when the body is quite exhausted and worn out. Blood-letting, likewise, frequently repeated, and in small quantities, hath been



used with success to alleviate this symptom, and a buff hath been almost always found upon the blood whenever it hath been taken away. If then nothing more was requisite than to palliate such a complaint, no doubt but this evacuation would be extremely judicious. But when we come to enquire how we shall restore health to a consumptive person, we must reason after a different manner. And that health may be restored I believe is no chimæra.

Every view which we have taken of this subject, presents us with a disease which depends on an acrimonious nature of the animal fluids. Most of those subjects which operate by way of remote cause, have this tendency, and the debility of the solids, which are incapable of discussing an inflammation, naturally are disposed to produce it. This disease, particularly in this country, generally arises from this source. A person of tender and delicate frame, after the fatigues and inconveniences of dressing, by which half the day almost is engaged, and with all that anxiety which a fondness of admiration

tion will excite, goes into a public room, which is not only heated by the number of breaths and candles, and fires which it contains, but is replete likewise with noxious effluvia of every kind. Hence she repairs frequently into cold damp night air, and then is obliged to sack whey, or other warm liquors, and a warm overheated bed, to restore again the perspiration which is obstructed; this occasions a perpetual cooling and heating of the body by fits, and excites a high degree of animal exertion to support the constitution in its proper state—In time this produces great debility, this debility produces acrimony, and this acrimony produces inflammation. Simple plenitude of the fluids then hath very little to do with the origin of this disease. Sometimes, indeed, we find that a sudden exposure to cold will produce an inflammation, where no predisposing cause hath operated on the system to produce acrimony. But this disease seldom terminates in a consumption. To one of this kind, we find hundreds I may almost say, in whom it always begins with a cold, that  
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is accompanied with a short dry cough, which is hardly taken notice of till it is too late to afford relief for it. So much for the origin of the disease. But if we pursue it to that stage in which the whole constitution seems to be affected, we shall find that the source of every symptom is a high degree of acrimony in the fluids, and of debility in the solids, of the system which mutually act upon each other to produce the most direful effects—How then is blood-letting indicated, which we have all along considered as productive of weakness where great plenitude did not obtain, and to which only it was accounted a relief.—But we have already seen that blood-letting will be of service to the lungs which are oppressed by too great a weight of fluid, though an universal plenitude doth not obtain, and that it relieves that laborious breathing which makes life so uncomfortable, and often threatens a suffocation. We will allow that bleeding does at the time relieve this complaint; but when it returns, and return it will, it recurs with double violence, till the patient is obliged to submit to its force.

And



And the reason of it is this—Every time we bleed, we abstract so much from the strength of the patient; by this means then the animal power is not able to struggle with the stimulus which occasions the short breathing, but must yield to it for want of force to stand against it. Bleeding indeed frees it for the present from this stimulus, which arose from too much blood in the lungs; but then as the body hath lost so much more strength, when the blood is again repaired, the stimulus of it is much stronger than it was before, and so it goes on till death closes the scene. There is another inconvenience too arising from this practice, and which very much invalidates its use. It is this, that as it induces debility, so it prevents all accession of strength; not only the circulating organs lose all their powers, but those of digestion likewise suffer from a general debility. So that upon the whole we may observe, that in an incipient consumption much bleeding may be prejudicial, and in a confirmed one it will certainly be productive of injury; it is at best but a palliative remedy; and it can  
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never be properly supported as a means of cure in this disorder, till this maxim shall obtain in the practice of physic, that the safety of a particular organ upon which life *may* depend is of more consequence than the preservation of the whole system, without which life cannot be supported. By attending to the system in general, we may perpetuate a very troublesome disease; but by attending to a particular organ, we may hasten an event with which few people would exchange the worst of diseases.

I do not intend by this absolutely to destroy bleeding in this disease in almost any stage of it. The symptoms of short breathing and cough, may be so urgent as to require it, when every other reason should persuade us to the contrary. But my objection is to laying down any general rules about such an evacuation, and trusting to the utmost ignorance for the execution of it. Better were it that such a practice should be absolutely proscribed, than that it should be adopted as a habit, which must inevitably destroy in the end. It is very common for patients under this complaint to be ordered to bleed once or twice in a week  
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for a considerable length of time, and to require no other opinion but their own feelings for the propriety of it. This would certainly be injudicious if the complaint were merely inflammatory, or proceeded from too great plenitude of the fluids, because even in such cases, the time of bleeding and quantity of blood to be drawn, require a good deal of judgment to determine ; and this will need no explanation to any one who considers the many unforeseen accidents upon which every disease, the most simple as well as the more complicated will depend. Who can guard against the changes of air which will be felt even in a sick chamber, though kept ever so close ! Who can prevent the vicissitudes which will be occasioned in every constitution from those accidents by which a sick man's mind is more disturbed than that of a person in health ! But this disease runs so quick into a state of ulceration, that it requires the greatest exactness to watch its progress. Who can do this for themselves, where their fears may aggravate, or their good opinion of their complaint may conceal many symptoms to which they are strangers. Another excuse

may be made for those who drink the Hotwell waters for repeated bleeding in this disorder. The great fulness which the quantity of water taken in will occasion. There is no doubt but this will add to the volume of the blood, but then it must add to the fluidity of it likewise, and it is much more eligible to suffer it to pass through the circulation, and be carried off by some other evacuation in the same state in which it was received, than to be taken away with that pure fluid which is of so much consequence to the strength of the constitution. Besides the Hotwell-water should be taken in much smaller quantity than is usually directed, its virtues by this means would be ascertained more clearly, and it would continue in the body a sufficient time to produce every effect which can be expected from it. If indeed the human body in this disease wanted a mechanical cleansing,\* a quantity of water might answer this purpose, and then any other water would be of the same efficacy with that at the Hotwells. This is not however an indication in this disease, and the

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\* This puts me in mind of the case of a gentleman, which I have heard related, who after drinking the Hotwell-water without success, was cured by a gallon of common water, drank every day.



water should be given in such a manner as not to increase the volume of the blood more than is just, till it has produced its proper effect, and then it should be carried off by some natural excretion. I would rather yield every advantage that can be derived from this remedy, than qualify it by an evacuation so pernicious as blood-letting; for such practice as this is but sporting with the constitution of a fellow-creature, over which we have no right to assume an authority. We destroy with one hand, the benefits we bestow with the other, and lull asleep in careless security the victims of our deception. The only apology we can make for such a conduct, is, that we keep the mind free from distress and agitation, and the uncomfortable thoughts of a dying man. But then why should we keep him at a distance from his home, and occasion an unnecessary expence when no advantage can be expected from it? Why should we not attempt a method which may be more secure?

It would be unjust however to hint at such a method unless it were very probable it would succeed. Upon a more accurate examination than we have given of



this subject, it may be found that no other than palliative remedies can be admitted in this disorder, and that if that should be the case, bleeding bids the fairest to procure ease during the short remainder of existence, which is allowed the patient. Were this absolutely the fact, I would willingly embrace the maxim, and adopt it as the rule of my practice; but I believe there are some reasons to doubt it; and these are derived not only from a careful reflection, but in some measure from experience likewise. An obstinate and perverse woman was admitted as an out-patient to the Bristol Infirmary, Jan. 25, 1768, the strength and fullness of her pulse, her short-breathing, dry hard cough, &c. seemed to indicate bleeding, but she would not submit to it upon any account; cooling medicines therefore were ordered, with a linctus of sperma-ceti to assuage the cough. These, however, seemed to have but very little effect, the shortness of her breath increased, and I had great apprehensions of her being suffocated for want of relief. She still persisted in her refusal to be bled, and the state of her pulse, and the weakness and delicacy

delicacy of her frame prohibited the use of any medicines of a heating or stimulating nature, and all that I could venture to give was a small quantity occasionally of the Tinct. fœtid to relieve her fainting. Indeed about a month after her admission I attempted to give a mixture of Lac Ammoniac and Squills, but it heated her too much, and disagreed with her stomach, so that I was obliged to desist from it, and return to the saline mixture and pectoral medicines as before. In this way she has continued ever since, and has never been bled more than once, but has persisted in the other medicines, with now and then a blister and a vomit, as she can bear them, and a dose of Rhubarb when her stomach is much disordered. She has frequently asthmatic fits, which nothing but time will relieve. She has as much flesh as when she first came to the House, but is very much in an emaciated state, and is constantly subject to hectic sweats, and many other complaints attendant on a consumption. Quere, Would frequent bleeding have cured this woman? Has not her strength been preserved by abstaining from it! This case  
and



and bleeding only, when very urgent symptoms have occurred, have dissuaded me very much from this evacuation; and I trust more to the neutral salts, to which I frequently add the different preparation of antimony; and wherever the breath will permit, I give the cortex, and other strengtheners of the system.

But there is a plan which hath not been without its advocates in the cure of this disease, and which bids the fairest of doing it radically of any that have been mentioned, and I cannot help thinking that it might be practised much oftener than it is. This is by the operation for the empyema, or opening the cavity of the thorax, and discharging the matter of the abscess gradually at the aperture. The great objection to this operation is the uncertainty of an abscess being formed in the chest, and the situation of it when it is formed. But I cannot think these of any very great consequence. If we watch the progress of the disease, we may easily ascertain the formation of pus, but it is principally known by those frequent shivering periodical fits which are often taken for an intermittent fever. Whenever these occur, we may be certain



certain an abscess is forming, which in time will burst, and if it be discharged into the cavity, must soon destroy the patient; and if discharged upwards, will often suffocate him before proper relief can be administered. With regard to the situation of it likewise, I think we need not be at all solicitous. If a wound be made in any part lower than where the abscess is formed, the matter would not flow out immediately, yet in process of time it would work its way to that place which is continually stimulated by the air, and whenever it broke, as all fluids naturally tend to depending situations, it would find a place at which it would immediately be discharged. Whenever then we are certain that an abscess is formed, if we find we can do nothing by exudation, or discharging the matter of it by some natural excretion, what injury would it be to make an opening into the thorax, and keep it constantly open by means of a canula, or pipe, made for that purpose? The original operation would be the only inconvenience in this manœuvre, and that is far from being painful or tedious. This, however, I submit to the opinion of the faculty,

faculty, and shall esteem myself extremely happy, if by hinting at such a scheme I save a life which otherwise must have been lost.

The great advantages which attended an operation of this kind under my direction, have persuaded me of its utility. And I only want greater authority and the sanction of wiser men to put it often in execution. In the case which I refer to, and which I hope the ingenious surgeon who performed it will soon lay before the public, there was no evident fluctuation in the chest, but the patient spit a pint or more of matter in a day, and was wasting away with every hectic symptom. The opening was made low down upon the chest, and as the patient lay upon his side, nothing was evacuated at the wound, but the moment he was raised up the purulent matter gushed out in a torrent, and was discharged in a very considerable quantity. The wound was kept open by a canula, and every day a fresh discharge, less and less, was made for about two months, when it entirely ceased, and by the use of the bark and a milk diet, the patient recovered his health, and was living not 12 months since perfectly sound, and free from every return of the complaint.









